

graphical Distribution), the evidence furnished by the lower vertebrates confirming that derived from the higher vertebrata and the plants. There are fifteen species of Batrachia and Reptilia not found in any other part of North America; three of these occur in Cuba, but none elsewhere. He then stated that Mr. Meek had recently sent to the museum of the Smithsonian Institution a species of *Elaps*, the *E. distans* of Kennicott, which had been known previously from the Sonoran region only. This discovery might be associated with that of the western burrowing owl in Florida, and the fact that the Floridan *Ophibolus getulus* presents the same number of rows of scales as the black and white *Ophiboli* of the Sonoran region.

JANUARY 19.

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-four members present.

On a Fungus in a Flamingo.—Prof. LEIDY remarked that a pair of Flamingoes had recently died in the Garden of the Zoölogical Society at Fairmount Park. Dr. Chapman, who had dissected the birds, called his attention to the diseased condition of the lungs of one of them, the other not being affected in this respect. The posterior part of the lungs on both sides, contiguous to the abdominal air sacs, was occupied by an indurated brown substance, in striking contrast with the usual bright roseate hue of the neighboring pulmonary tissue. An incision made into the indurated substance exhibited a brown compact surface with greenish-black dots which corresponded with the bronchial tubes. On microscopical examination the substance was found to be pervaded with a fungous vegetation, and the greenish-black dots were due to the fruit heads profusely covered with colored spores.

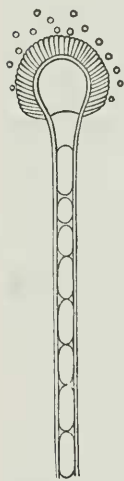
Prof. Owen, upwards of forty years ago, mentioned the existence of a green mould he had observed in the lungs of a Flamingo, which died in the menagerie of the Zoölogical Society of London, but he gave no description of the plant by which we can recognize it. Since then many accounts have been given of the existence of fungous vegetation in the diseased lungs of various birds, but I think it has not been determined whether the diseased condition was due to the fungus, or whether this was a subsequent production.

The plant observed in our diseased Flamingo belongs to the Moulds or Mucedines, and is evidently an *Aspergillus*. A number of species of this genus have been described, growing on various decaying substances. The common Blue Mould found in cheese and bread kept in a damp place, is the *Aspergillus glaucus*. From this the mould of the Flamingo is quite distinct in the structure of

the fruiting receptacles, in which respect it more nearly resembles the *Aspergillus dubius*, growing on rabbit's dung. The *Aspergillus* of the Flamingo, I suspect to be the same as one described by M. Robin, under the name of *Aspergillus nigrescens*, discovered by him in the lungs of a pheasant (*Phasianus colchicus*) affected with phthisis.

In the Flamingo mould, the mycelium consisted of a dense flock of delicate ramifying filaments pervading the indurated pulmonary tissue, which consisted largely of nucleated cell elements and granules. The threads of the mycelium were branching, and occupied on the interior with clear globules appearing like rows of beads. The threads measured usually the $\frac{1}{500}$ th of a millimetre or less in diameter.

The fruiting stems (see accompanying figure) were straight, from one-fourth to two-fifths of a millimetre long, not articulated, usually simple, and rarely divided approximating a right angle, near the head. They were about the $\frac{2}{50}$ th mm. wide at the mycelial origin and double the width approaching the head. The head continuous with the stem was pyriform; or the stem expanded into a globular receptacle, which was closely crowded with linear processes, or sporophores, supporting the spherical, translucent colored spores. The latter profusely invested the heads, but were too ripe and readily detached to determine their exact arrangement in relation with the sporophores. These, on the contrary, remained firmly attached to the receptacle.



336 diam.

The receptacles measured from the $\frac{1}{60}$ th mm. to the $\frac{1}{50}$ th mm. The stratum of sporophores was from $\frac{1}{168}$ th mm. to the $\frac{1}{15}$ th mm. thick. The spores were the $\frac{1}{333}$ d mm. in diameter.

By transmitted light, the spores appeared so faintly colored that the tint was undetermined; by reflected light, in mass they appeared of a greenish hue. The receptacles including the sporophores appeared fuscous by transmitted light, but white by reflected light.

In M. Robins' plate of *A. nigrescens* he represents most of the fruiting stems as articulated, but in our plant none of this character were detected.

JANUARY 26.

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-one members present.

The resignation of Lloyd P. Smith as a member of the Academy, was read and accepted.

The following were elected members:—